

# Human LAP (TGF-beta 1) Protein, Tag Free (MALS verified)

Catalog # LAP-H5213



## Synonym

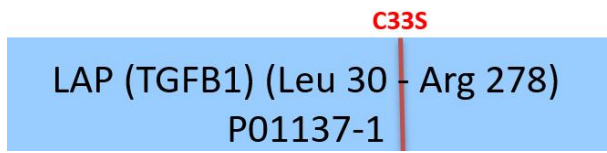
LAP (TGF-beta 1), LAP (TGFB1), TGFB1, CED, DPD1, LAP, TGF-beta-1, TGFB

## Source

Human LAP (TGF-beta 1), Tag Free (LAP-H5213) is expressed from human 293 cells (HEK293). It contains AA Leu 30 - Arg 278 (Accession # [P01137-1](#) (C33S)).

Predicted N-terminus: Leu 30

## Molecular Characterization



### Other Tags and Version Biotin & Other Labeled Version

This protein carries no "tag".

The protein has a calculated MW of 28.5 kDa. The protein migrates as 33-45 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

## Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

## Purity

>90% as determined by SDS-PAGE.

## Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

## Reconstitution

Please see Certificate of Analysis for specific instructions.

**For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.**

## Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

**Please avoid repeated freeze-thaw cycles.**

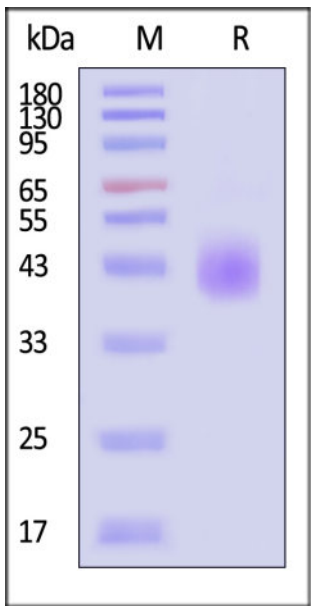
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

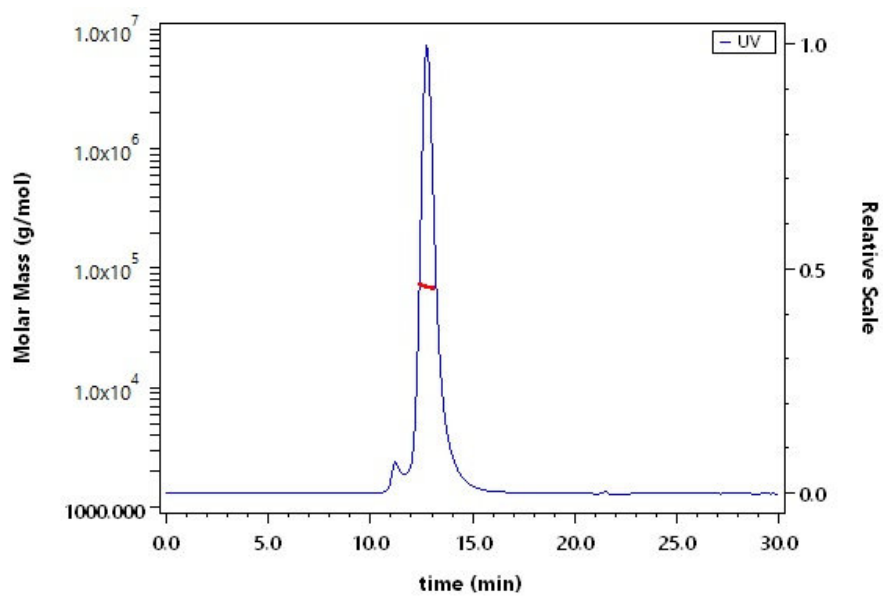
## ACRO Quality Management System

- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

## SDS-PAGE

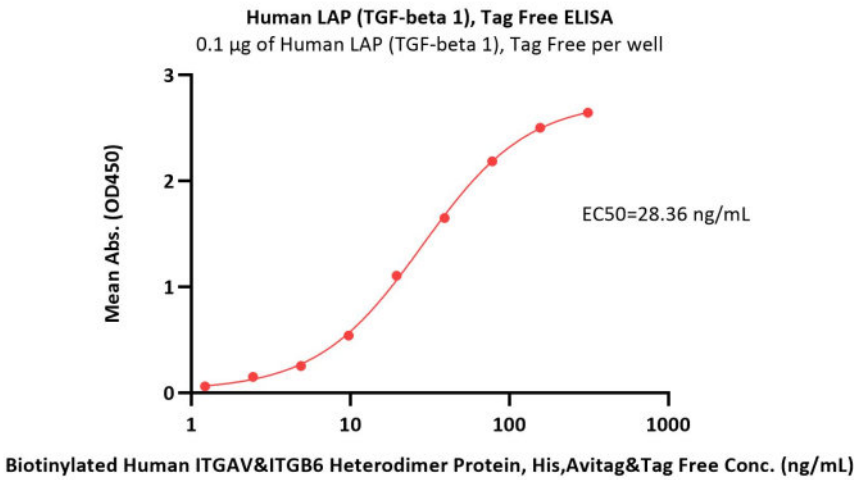
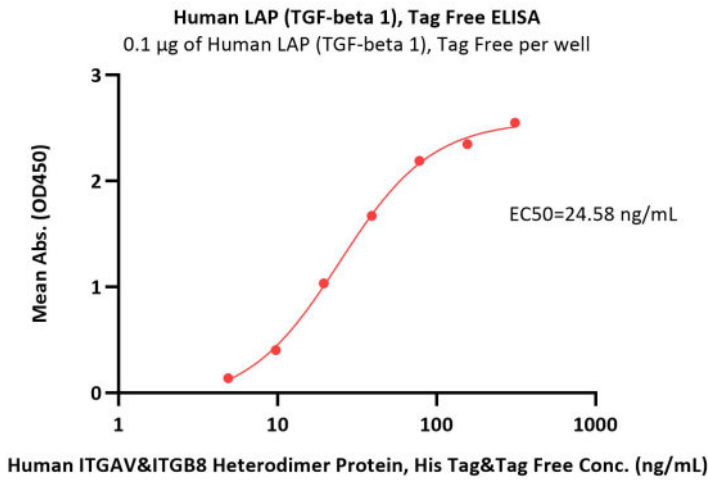


## SEC-MALS



Human LAP (TGF-beta 1), Tag Free on SDS-PAGE under reducing (R) condition. The purity of Human LAP (TGF-beta 1), Tag Free (Cat. No. LAP-H5213) is more than 85% and the molecular weight of this protein is around 62-76 kDa verified by SEC-MALS. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

## Bioactivity-ELISA



Immobilized Human LAP (TGF-beta 1), Tag Free (Cat. No. LAP-H5213) at 1 µg/mL (100 µL/well) can bind Human ITGAV&ITGB8 Heterodimer Protein, His Tag&Tag Free (Cat. No. IT8-H52W4) with a linear range of 5-39 ng/mL (QC tested).

Immobilized Human LAP (TGF-beta 1), Tag Free (Cat. No. LAP-H5213) at 1 µg/mL (100 µL/well) can bind Biotinylated Human ITGAV&ITGB6 Heterodimer Protein, His,Avitag&Tag Free (Cat. No. IT6-H82E4) with a linear range of 1-39 ng/mL (Routinely tested).

## Background

Transforming growth factor beta 1 ( TGFB1) is also known as TGF-β1, CED, DPD1, TGFB. is a polypeptide member of the transforming growth factor beta superfamily of cytokines. It is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. The TGFB1 protein helps control the growth and division (proliferation) of cells, the process by which cells mature to carry out specific functions (differentiation), cell movement (motility), and the self-destruction of cells (apoptosis). The TGFB1 protein is found throughout the body and plays a role in development before birth, the formation of blood vessels, the regulation of muscle tissue and body fat development, wound healing, and immune system function. TGFB1 is particularly abundant in tissues that make up the skeleton, where it helps regulate bone growth, and in the intricate lattice that forms in the spaces between cells (the extracellular matrix). Within cells, this protein is turned off (inactive) until it receives a chemical signal to become active. TGFB1 plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Most immune cells (or leukocytes) secrete TGFB1. TGFB1 has been shown to interact with TGF beta receptor 1, LTBP1, YWHAE, EIF3I and Decorin.

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